

REMARKS

After entry of this amendment, Claims 1-31 are pending in the application. Claims 1, 10, 13, 21 and 23 have been amended to more particularly point out and distinctly claim the subject matter which applicant regards as the invention. New Claims 24-31 have been added in this amendment. Reconsideration of the application as amended is requested.

In the Office Action dated June 16, 2004, Claims 1-9, 11-16, and 18-22 stand rejected under 35 U.S.C. § 102 (b) as being anticipated by Ota (JP 6-105568). It is submitted that Ota reference does not anticipate, teach or suggest the invention as recited in claims 1-9, 11-16, and 18-22. In particular, as evidenced by the English language computerized translation obtained from the Japanese Patent Office, the Ota reference discloses a rotary drive mechanism illustrated in Figures 1-17, and a linear drive mechanism illustrated in Figures 18-23. Neither configuration anticipates, teaches, or suggests the structural limitations recited in original Claim 1, specifically that a secondary portion of the support structure be integrally formed on outer end of each of the first and second arm portions for movement therewith. As identified by the Patent Examiner in the §102 (b) rejection, the first and second arm portions (45,53) do not include a secondary portion integrally formed on an outer end of each arm portion for movement therewith, where a secondary actuator operably associated with each secondary portion drives each secondary portion between an opened position and a closed position in response to an electrical activation of the secondary actuator. Furthermore, the Ota reference does not anticipate, teach or suggest the specific structural configuration recited in Claim 4 including a pair of hinge portions extending generally parallel to one another between the force transfer member portion and each arm portion of the support structure, and between the force transfer member portion and each side of the support structure. Furthermore, the Ota reference does not anticipate, teach or suggest first and second secondary arm portions integrally associated with and extending from opposite ends of each secondary web portion as recited in Claim 5, or a force transfer member portion for transmitting force from the secondary actuator to move the associated secondary arm portions as recited in Claim 6. The Ota reference does not anticipate, teach, or suggest any valve portion formed as part of each of the secondary portions of the support structure as recited in Claim 9. Claim 1 has been amended to include the word "with" which was inadvertently admitted from the originally submitted language of the Claim, does not effect the patentability of the Claim, and is not made to overcome the cited patent reference.

Claim 13 has been amended into independent form including the limitations of Claim 1 and Claim 11 with the exception of the recitation that the secondary portion is "integrally formed" on an outer end of each arm portion of the support structure, since this limitation is considered unnecessary for the patentability of Claim 13. The Ota reference does not anticipate, teach or suggest operating actuators independently of one another in different sequential series for bi-directional operation for pumping fluid in either direction with respect to the support structure. Furthermore, the Ota reference does not anticipate, teach or suggest first and second pair of substantially parallel hinges for the first and second arm portions to pivot about respectively, where the first and second pair of hinges are formed by at least one reduced area created by slots located in the support structure between each arm portion and each side of the structure, and between the force transfer member and the arm portions as recited in Claim 16. The Ota reference also does not anticipate, teach or suggest means for preloading at least one of the primary and secondary actuators as recited in Claim 19, or the specific structural configuration of the preloading means as recited in Claim 20. Contrary to the Examiner's assertion, the screw (m) is not operably associated with a force focusing member such that a preload force can be applied to the actuator through the screw and the force focusing member prior to energizing the actuator. The Examiner's attention is directed to the English language computerized translation obtained from the Japanese Patent Office for the cited reference. Reconsideration of the Examiner rejection is requested.

Claim 17 stands rejected under 35 U.S.C. § 103 (a) as being unpatentable over Ota. The Examiner states that it would have been obvious to one having ordinary skill in the art at the time the invention was made to select a homogenous material for the support structure since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. It is submitted that the Ota reference does not anticipate, teach or suggest the invention as recited in Claim 17. In particular, the Ota reference does not teach or suggest a secondary portion integrally formed on an outer end of each arm portion of the support structure as specifically recited in original Claim 1 submitted with the application. Reconsideration of the Examiner's rejection is requested.

Claims 10 and 23 stand objected to as being dependent on a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. It is submitted that Claims 10

and 23 have been amended into independent form including all of the limitations of the base claim and any intervening claims. It is submitted that these amendments place Claims 10 and 23 in suitable condition for allowance; notice of which is requested. The prior art fails to show the secondary portions defining a first valve portion and a second valve portion; and a pump means for pumping a fluid, the pump means position between the first and second arm portions of the support structure and in fluid communication with the first valve portion and the second valve portion.

New Claims 24-31 are submitted for the Examiner's consideration. The Examiner's consideration of Claims 24-31 is requested.

It is respectfully submitted that this Amendment traverses and overcomes all of the Examiner's objections and rejections to the application as originally filed. It is further submitted that this Amendment has antecedent basis in the application as originally filed, including the specification, claims and drawings, and that this Amendment does not add any new subject matter to the application. Reconsideration of the application as amended is requested. It is respectfully submitted that this Amendment places the application in suitable condition for allowance; notice of which is requested.

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If the Examiner feels that prosecution of the present application can be

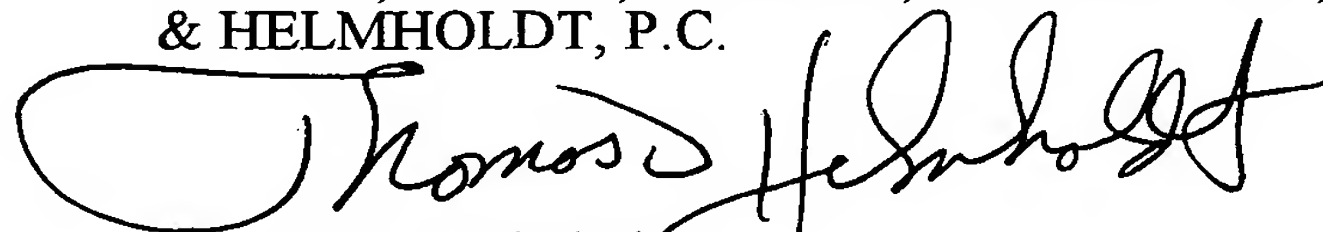
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expedited by way of an Examiner's amendment, the Examiner is invited to contact the Applicant's attorney at the telephone number listed below.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read "Thomas D. Helmholdt", written over the printed name and title.

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